

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: _____ Examiner #: _____ Date: _____
 Art Unit: _____ Phone Number 30 _____ Serial Number: _____
 Mail Box and Bldg/Room Location: _____ Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of invention: _____

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

STAFF USE ONLY

Searcher: am

Searcher Phone #: 22504

Searcher Location: _____

Date Searcher Picked Up: 3/2/05

Date Completed: 3/2/05

Searcher Prep. Review Time: _____

Clerical Prep. Time: 15

Online Time: 20

Type of Search

NA Sequence (#) _____

AA Sequence (#) ✓

Structure (#) _____

Bibliographic _____

Litigation _____

Fulltext _____

Patent Family _____

Other _____

Vendors and cost where applicable

STN _____

Dialog _____

Questel/Orbit _____

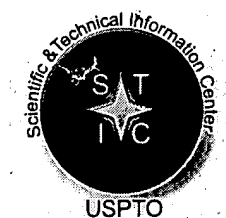
Dr. Link _____

Lexis/Nexis _____

Sequence Systems ✓

WWW/Internet _____

Other (specify) _____



STIC Search Report

Biotech-Chem Library

STIC Database Tracking Number: 146331

TO: Ilia Ouspenski
Location: 3d74 / 3c70
Wednesday, March 02, 2005
Art Unit: 1644
Phone: 272-2920
Serial Number: 10 / 032214

From: Jan Delaval
Location: Biotech-Chem Library
Rem 1a51
Phone: 272-2504

jan.delaval@uspto.gov

Search Notes

146331

Delaval, Jan

From: Ouspenski, Ilia
Sent: Tuesday, March 01, 2005 9:21 AM
To: Delaval, Jan
Subject: seq search for 10/032,214

Dear jan,

please search amino acid seq id no:278 for 10032214.

thanks,

ilia

ILIA OUSPENSKI, Ph.D.
Examiner
Art Unit 1644
Phone: 571-272-2920
REM 3D74
Mailstop 3c70

A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-309 <RES>
A:Cross-references: UNIPROT:Q00609; UNIPROT:Q61332; GB:U12589; NID:G293299; PIDN:AAA3724
R:Freeman, G.J.; Gray, G.S.; Giammi, C.D.; Lombard, D.B.; Zhou, L.J.; White, M.; Fingerhut
J. Exp. Med. 174: 625-631, 1991
A:Title: Structure, expression, and T cell costimulatory activity of the murine homologue
A:Reference number: S17291; MUID:91341422; PMID:1714935
A:Accession: S17291
A:Molecule type: mRNA
A:Residues: 1-274,'R',279-309 <RES>
A:Cross-references: EMBL:X60958; NID:G50111; PIDN:CAA4291.1; PID:G50112
R:Inobe, M.; Iinsley, P.S.; Ledbetter, J.A.; Nagai, Y.; Tamakoshi, M.; Ueda, T.
Biochem. Biophys. Res. Commun. 200, 443-449, 1994
A:Title: Identification of an alternatively spliced form of the murine homologue of B7.
A:Reference number: I49521; MUID:94220123; PMID:751163
A:Accession: I49521
A:Status: translated from GB/EMBL/DBJ
A:Molecule type: mRNA
A:Residues: 1-143,238-274,'R',279-309 <RES>
A:Cross-references: GB:D16220; NID:G505118; PIDN:BAA03748.1; PID:G994769
C:Genetics:
A:Gene: B7
A:Introns: 37/1; 143/1; 237/1; 275/1
C:Superfamily: B-lymphocyte restricted antigen B7
;Keywords: alternative splicing

```

Query March 38.2%; Score 587.5; DB 2; Length 309;
Best Local Similarity 45.1%; Pred. No. 5e-38;
Matches 125; Conservative 47; Mismatches 90; Indels 15; Gaps 7;

QY 14 CPYINFPOLLVIAGSHFPCSGV-IHVTKEVEVATLSGCHNVSEBELAQTIRYQKEKM 72
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
Db 18 CPRL-ILLFVLLIRLSQVSSDVDEQLSKSVXDVLPRRNVSPHEDESEDITVQKDKV 76
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 73 VLTMMSGDMNIWPEYKNTTFDITNNISIVITALRPSDEGTVECVLTKYKAEKRREHLA 132
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
Db 77 VLSVIAGLKLKVMPEYKNTTLVDNT-TYSLIIILGLVLSRGTYSCVQKKEKGTVEKHLA 135
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 133 EVLTSSVADFPPTPSIDSEIPTSNIRRIICSTSGGFPEPHLSWLENGBELNAITVTSOD 192
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
Db 136 LVKLSIKADFTPTNTESGNSPADTKRITTCASGGFPFRPSWLENGELPGINTTTSOD 195
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 193 PETELIYAVSSKLDPMNTNHSFMCILIKYGHIRVNOTFPMNTTKOHPFD-NLPSVAIT 250
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
Db 196 PESSLYTISQDLDNTTRNHTIKCLIKYGDHVSDFWMEKPPDD-PDSKNTLVLFAG 254
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

QY 251 LISVNGIFVICCLTYCPAPRCRER-----RNERELR 281
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|
Db 255 FGAVTVVVIIVIIKCF---CKHNLQSGCSPRNEASR 288
   |||:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|:::|

RESULT 6
A48754
B7-2 antigen - human
N/Alternate names: B70 glycoprotein; CD86 antigen; CTLA-4 counter-receptor
C/Species: Homo sapiens (man)
C/Date: 10-Sep-1999 #sequence #revision 10-Sep-1999 #text_change 09-Jul-2004
C/Accession: A48754; S39055
R/Accession: A48754; S39055
R/Freeman, G.U.; Gribben, J.G.; Boussiotis, V.A.; Ng, J.W.; Restivo Jr., V.A.; Lombard,
Science 262, 909-911, 1993
A/Title: Cloning of B7-2, a CTLA-4 counter-receptor that costimulates human T cell prolif
A/Reference number: A48754; MUID:94053735; PMID:7694363
A/Accession: A48754
A/Status: Preliminary
A/Molecule type: mRNA
A/Residues: 1-329 <FRS>
A/Cross-references: UNIPROT:P42081; GB:I25259; NID:9416368; PIDN:AA58389.1; PID:9416368
A/Note: It is uncertain whether Met-1 or Met-7 is the initiator.
R/Author: M.; Ito, D.; Yagita, H.; Okumura, K.; Phillips, J.H.; Lanier, L.L.; Somoza, C.
Nature 366, 76-79, 1993
A/Title: B70 antigen is a second ligand for CTLA-4 and CD28.
A/Reference number: S39055; MUID:94050123; PMID:7694153

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A|Accession: S39055
A|Status: preliminary
A|Molecule type: mRNA
A|Residues: 7-329 <ADU>
A|Cross-references: GB:U04343; NID:g439838; PIDD:AB0814.1; PID:g439839
C|Genetics:
A|Gene: GDB:CD86; CD28LG2
A|Cross-references: GDB:433597; OMIM:601020
A|Map position: 3q13.3-q21
C|Superfamily: B7-2 antigen
C|Keywords: glycoprotein

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Query Match      13.1%; Score 201.5; DB 1; Length 329;
Best Local Similarity 25.1%; Pred. No. 3,76-08;
Matches 78; Conservative 57; Mismatches 109; Indels 67; Gaps 17;

QY PFOLLVLGASHPCSGYIHVTKVEKVALTSC-----GHNVSVBELAOTRIYMOKREKVLT 74
   |||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||
Db FVMAFLLSG-----AAPLKIQAYENFETADLPCCGANSONQSLSELT--VFMOQENLVL 65
   |||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||

QY TTM----SGDMIMPEYKARTIPDITNNLSIVILALPSPBGTGYECVVALKYEKAFFKEH 130
   :|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||
Db NEVLAGKEKPEPSVSKTKMGRTSPDSDSWTLRLHLNLOIKKGVLQCIIHHKKPPGMIRIH 124
   :|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||

QY LAEVTLSVKADPFPRISDSPEIPIPSNR-----RIISTGGGPPEP-HLSWLENGEELNA 184
   |||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||
Db QMNSSELVANFSOPEL---VPLSNITENVYINLTCSITHGEYPKMSVLT-----LRT 175
   |||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||

QY INTTV-----SQDETELAVASSKLDP---NMNTNHSFMCLIKYGHLR-VNQTFNWN 232
   |||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||
Db KNSLIIEVDGIOMQSQDNVTELYDYDISLSASFVPVYSNMNTIFCLLENDKRRLLSPSIE 235
   |||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||

QY TTQKHFPDNLIPSWAITLISVNGIFNYICCLTYCF-----APR-----CERR 275
   |||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||
Db LEDQPDPDDHT--PW---ITAVLPVTVIIQMVFLCLIMWKKKRKRPNSYKCGTNTWERE 290
   |||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||

QY RNERL-RRESV 285
   |||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||
Db ESEQTKRREKI 301

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RESULT 7
JC7604
CD86 spliced variant CD86 deltaTM isoform - human
C|Species: Homo sapiens (man)
C|Date: 30-Jun-2001 #sequence_revision 30-Jun-2001 #text_change 18-Nov-2002
C|Accession: JC7604
R|Majorsirelli, G.; Caron, G.; Gauchat, J.F.; Jeannin, P.; Bonnefoy, J.Y.; Delneste, Y.
B|Biochem. Biophys. Res. Commun. 280, 1211-1215, 2001
A>Title: Identification of an alternatively spliced variant of human CD86 mRNA.
A|Reference number: JC7604; MUID:21092744; PMID:11162656
A|Accession: JC7604
A|Molecule type: mRNA
A|Residues: 1-275 <MG>
C|Comment: This CD86 variant expressed by activated human monocytes, is a costimulatory
C|Genetics:
A|Gene: cd86deltaTM
C|Superfamily: B-lymphocyte restricted antigen B7
C|Keywords: Immune response

Query Match      12.1%; Score 186.5; DB 2; Length 275;
Beat Local Similarity 26.0%, Pred. No. 4.3e-07;
Matches 68; Conservative 47; Mismatches 90; Indels 57; Gaps 13;

OY    19 FQOLLVLAGSHPCSGVIHVTKEVEVAATSC---GNHSVVEBLAQTRIVQKCKMYL 74
       :||:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|
Db     8 FYNAFLLTSG-----AAPLKIQAYFNEMETADLPCEPANSONOSLSIEIV---VFMOQDENLYL 59
OY    75 TMM-----SGDNINIMPEYKNRTIPDITNNLSVILALRPDSGTYECWVLKYEKDAFKREH 130
       :||:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|
Db     60 NEVYLGRKEKEDPSVKTKMGRISFD-SDSWTLRLNLQIKDGALVCCLITHHKKPFGMTIRH 118
OY    131 LAEYTLTVKADFPPPSISDFEIPTSNIR-----RIICSTSGGFPEP-HLWSLENGEEELINA 184

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